

DOOR HANDLE ASSEMBLY

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BACKGROUND INFORMATION

[002] Cabinet structures are often used to house gaming terminal components. Rail and pin arrangements may be used to latch the doors in these cabinets. The rail may be raised by applying pressure to it through a small open space in the door. The space may be small enough to accommodate only one finger, however, the door may be heavy enough that some people would encounter great difficulty in applying the amount of force needed.

BRIEF DESCRIPTION OF THE DRAWINGS

[003] Figure 1 illustrates an example conventional gaming terminal door latch.

[004] Figure 2A illustrates an example door handle assembly according to an example embodiment of the present invention.

[005] Figure 2B illustrates an example door handle assembly according to an example embodiment of the present invention.

[006] Figure 3 illustrates an exploded view of the pieces of an example door handle assembly according to an example embodiment of the present invention.

[007] Figure 4 illustrates an exemplary lottery terminal having a door handle assembly

according to an example embodiment of the present invention.

DETAILED DESCRIPTION OF EXAMPLE EMBODIMENTS

[008] Figure 1 illustrates an example conventional door latch. The door may be in a gaming terminal cabinet. In the interior of the cabinet, various electronic components may be housed, such as a monitor, a processor, a gaming ticket printer, a money receptor, and a card reader. A flexible gasket may be arranged around the doorframe in order to seal the opening around the door. The door may include an aperture 103 through which a latch 105 may be accessed. Latch 105 may be arranged as part of a conventional rail and pin type of door attachment. The door may include a keyslot 107 which may be used to access a lock.

[009] Figures 2A and 2B both illustrate an example door handle assembly according to an example embodiment of the present invention. According to Figure 2A, a support plate 205 having an aperture 207 may be placed on the door. The support plate 205 may be placed over the aperture 103, such that the two apertures at least partially overlap. This allows the latch 105 to be accessed through the support plate 205. Screws may be used to secure the support plate 205 in place. The door handle 210 may be arranged on the support plate 205. The door handle 210 is shown in a closed position in Figure 2A and in an open position in Figure 2B.

[010] Figure 3 illustrates an exploded view of the pieces of an example door handle assembly according to an example embodiment of the present invention. The door handle 210, may be pivotably attached to the front of the support plate 205 using a pivot pin 302. A washer 304 and a screw 306 may be used to secure the pivot pin 302. A cam roller 307 protrudes from the handle 210 into the aperture 207. A cam follower 308 may be secured to the cam roller 307 on the back of the support plate through aperture 207. A retaining device 310 may be applied to the handle so that the when the handle is raised into the open position it will remain in the open position.

[011] According to another embodiment of the door handle assembly according to the

present invention, an extension member may be provided, such as a lever, handle, or other movable member. An arrangement may be provided such that a force imparted on the extension member is transferred in order to open the door, for example, by raising a latch. This arrangement may include a cam shaft and cam follower, or a roller bearing, for example.

[012] Therefore, the door handle assembly of the present invention, facilitates opening the door by providing a fulcrum to impart force to raise the latch. The cam shaft and cam roller are capable of withstanding high forces, thereby allowing the door to be repeatedly opened and closed with ease.

[013] Figure 4 illustrates an exemplary lottery terminal having a door handle assembly according to an example embodiment of the present invention.

[014] Gaming terminal 401 includes a cabinet 405, which may be opened using door handle assembly 410 located on the door 407. As an alternative, the door handle assembly may be located on the cabinet itself, rather than the door. The handle may be pulled down in the direction indicated by arrow A in order to release the latch mechanism in the door. A lock 412 may be disposed in the door handle assembly for security purposes. The present invention may be used with any suitable gaming terminal, for example, the gaming terminal described in United States Patent No. 5,222,624.